

**REMARKS**

The Examiner is thanked for the thorough examination of the present application.

The Office Action, however, tentatively rejected all claims 1-20. In response, Applicant has canceled claims 1-20 and added claims 21-38 to more clearly identify a novel and non-obvious feature of the claimed invention. The cancellation of all rejected claims renders the rejections moot. Notwithstanding, Applicant sets forth the following additional remarks in an effort to advance the prosecution of these claims.

As an initial matter, Applicant notes that the added claims do not add any new matter to this application, as the newly added claims are clearly supported by the original application. In this regard, the following identifies locations of the original application, which provide support for the newly added claims.

Support for new claim 21 can be found, for example, on page 5-8 and FIGS. 2a-2c of the application.

Support for new claim 22, can be found, for example, in FIG. 2c of the application.

Support for new claim 23 can be found, for example, on pages 7-8 and FIG. 2c of the application.

In new claim 24, "...a transparent anode disposed on the planarizing insulating layer : an organic light-emitting layer disposed on the transparent anode : and a transparent cathode disposed on the organic light-emitting layer..." can be found, for example, on page 7-8 and FIG. 2c of the application. In addition, the limitation "...wherein the transparent insulating cover layer within the transparent light-emitting element is entirely sandwiched between the transparent anode and the organic light-emitting layer." can be found, for example, in FIG. 2c of the application.

Support for new claim 25 can be found, for example, on page 7, lines 24~26 of the application.

Support for new claim 26 can be found, for example, on page 7, lines 26~30 and FIG. 2c of the application.

Support for new claim 27 can be found, for example, on page 8, lines 1~3 and FIG. 2c of the application.

Support for new claim 28 can be found, for example, on page 6, line 9 of the application.

Support for new claim 29 can be found, for example, on page 8, lines 1-11 of the application.

Support for new claim 30 can be found, for example, on page 5-8 and FIG. 2c of the application.

In new claim 31, "a transparent anode in the OLED region, continuously and conformally extended into the contact window for electrically connecting the metal pattern; an organic light-emitting layer, disposed on the transparent anode; and a transparent cathode, disposed on the organic light-emitting layer;" can be found, for example, on page 7-8 and FIGS 2b-2c of the application. Besides, the limitation "wherein the transparent insulating cover layer within organic light-emitting diode is entirely sandwiched between the transparent anode and the organic light-emitting layer." can be found in FIG. 2c of the application.

Support for new claim 32 can be found, for example, in FIG. 2c of the application.

Support for new claim 33 can be found, for example, on page 8, lines 1~3 and FIG. 2c of the application.

Support for new claim 34 can be found, for example, on page 10, lines 7~14 of the application.

Support for new claim 35 can be found, for example, on page 7, lines 17~19 of the application.

Support for new claim 36 can be found, for example, on page 7, line 17~19 of the application.

Support for new claim 37 can be found, for example, on page 5-8 and FIG. 2c of the application.

Support for new claim 38 can be found, for example, on page 8-9 and FIG. 3 of the application.

For at least the foregoing reasons, Applicant submits that the newly added claims add no new matter to the application.

**Rejections under 35 U.S.C. 102(e)**

The Office Action rejected claims 1-3, 9-12,15, and 16 under 35 U.S.C. 102(e) as allegedly anticipated by *Gleason* Robert E. (US 6,392,617 B1). As set forth above, Applicant has canceled claims 1-20 and added new claims 21-38.

Applicant respectfully submits that the new claims 21,30, and 37 are patentable over Gleason for at least the reason that ***Gleason fails to teach or suggest a metal pattern, disposed in the planarizing insulating layer, capable of reflecting light through the transparent light-emitting element such that the reflected light is detectable by recognition equipment; and a transparent insulating cover layer,***

**disposed within and surrounded by the transparent light-emitting element, wherein a projection of the transparent insulating cover layer overlaps the metal pattern.**

In this regard, Gleason teaches an active matrix display, comprising: a substrate including a circuit region and a display region; a circuit device disposed on the circuit region of the substrate; a display device disposed in the display region of the substrate; and a metal pattern formed in the circuit region. It is noted that the metal pattern formed in the circuit region is not used for reflecting light through the transparent light-emitting element such that the reflected light is detectable by recognition equipment. Actually, the metal pattern of Gleason is used for block light from adjacent pixels (column 8, lines 6-8). Also, Gleason does not teach that the reflected light from the metal pattern is detectable by recognition equipment. Furthermore, the transparent insulator 604 of Gleason is disposed between the reflective metal layer 606 and the OLED 602, but not within and surrounded by the transparent light-emitting element.

With respect to new claims 21, 30 and 37, these claims recite:

21. A detectable flat panel display, comprising:  
a substrate; a circuit device, disposed on the substrate; a planarizing insulating layer, at least covering the circuit device; a transparent light-emitting element, disposed on the planarizing insulating layer; and *a metal pattern, disposed in the planarizing insulating layer, capable of reflecting light through the transparent light-emitting element such that the reflected light is detectable by recognition equipment; and a transparent insulating cover layer, disposed within and surrounded by the transparent light-emitting element, wherein a projection of the transparent insulating cover layer overlaps the metal pattern.*

30. A detectable flat panel display, comprising:  
a substrate, comprising a thin film transistor (TFT) region and an organic light-emitting diode (OLED) region; a thin film transistor disposed in the TFT region and an organic light-emitting diode disposed in the organic light-emitting diode (OLED) region, *wherein the thin film transistor comprises a metal pattern, capable of reflecting light*

*through the organic light-emitting diode such that the reflected light is detectable by recognition equipment; a planarizing insulating layer, at least covering the thin film transistor, wherein the planarizing insulating layer comprises a contact window to expose the metal pattern; and a transparent insulating cover layer, disposed within and surrounded by the organic light-emitting diode, wherein a projection of the transparent insulating cover layer overlaps the contact window and the underlying metal pattern.*

37. A recognition system, comprising: a detectable flat panel display; and recognition equipment, wherein the detectable flat panel display comprises: a substrate, comprising a thin film transistor (TFT) region and an organic light-emitting diode (OLED) region; a thin film transistor disposed in the TFT region and an organic light-emitting diode disposed in the organic light-emitting diode (OLED) region, a planarizing insulating layer, at least covering the thin film transistor; *a metal pattern, disposed in the planarizing insulating layer, capable of reflecting light through the organic light-emitting diode such that the reflected light is detectable by the recognition equipment; and a transparent insulating cover layer, disposed within and surrounded by the organic light-emitting diode, wherein a projection of the transparent insulating cover layer is only dimensioned to cover the metal pattern for avoiding the reflected light from the metal pattern being interfered by an emitting light from the organic light-emitting diode.*

(*Emphasis added.*) Independent claims 21, 30, and 37 patently define over the cited art for at least the reason that the cited art fails to disclose the features emphasized above.

Applicant respectfully asserts that *Gleason* is legally deficient for anticipating new claims 21, 30, and 37. Specifically, Applicant respectfully asserts that *Gleason* does not teach or otherwise disclose at least the feature/limitation emphasized above in claims 21, 30 and 37. Therefore, applicant respectfully submits that the *Gleason* fails to disclose all the limitations of claims 21, 30 and 37. It is therefore applicant's belief that claims 21, 30 and 37 are allowable over *Gleason*. Since claims 22-29, 31-36 and claim 38 are dependent claims that depend from claim 21, 30, and 37, Applicant respectfully asserts that claims 22-29, 31-36, and 38 are in condition for allowance.

**Rejections under 35 U.S.C. 103(a)**

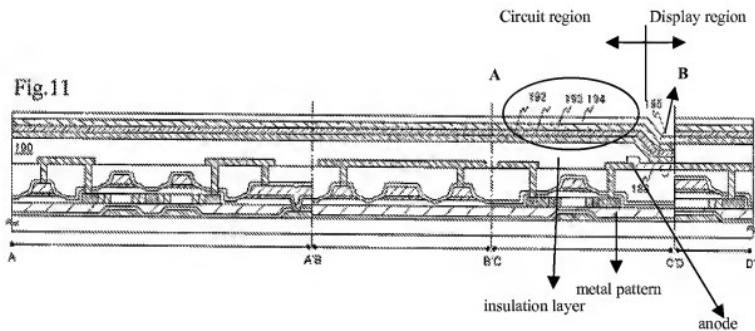
The Office Action rejected claims 4-8, 13-14, and 17 under 35 U.S.C. 103 (a) as being unpatentable over *Gleason* in view of *Yamazaki et al.* (US 20030075733 A1). Also, claims 18-20 are rejected under 35 U.S.C. 103 (a) as being unpatentable over *Gleason* in view of *Andry et al.* (US20030094894 A1). This specific rejections are no longer applicable, as claims 1-20 have been cancelled.

Applicant respectfully submits that new claims 21-38 are patentable over *Gleason*, *Yamazaki*, and *Andry*. In this regard, Applicant respectfully submits that *Gleason*, *Andry* and *Yamazaki* fails to disclose all features of independent claims 21, 30, and 37. Specifically, *Gleason* does not teach or otherwise disclose at least the features emphasized above in claims 21, 30, and 37. Namely, new claims 21 and 30 recite a transparent insulating cover layer, disposed within and surrounded by the transparent light-emitting element, wherein a projection of the transparent insulating cover layer overlaps the metal pattern. Also, new claim 37 recites a projection of the transparent insulating cover layer is only dimensioned to cover the metal pattern for avoiding the reflected light from the metal pattern being interfered by an emitting light from the organic light-emitting diode.

In this regard, the insulation layer of *Yamazaki* is disposed along the organic compound layer 192 and dimensioned to cover the circuit device. Moreover, the insulation layer of *Yamazaki* is disposed between the circuit device and organic compound layer 192, but not within and surrounded by the transparent light-emitting element. That is, the location of the transparent insulating cover layer, which

is recited in the claims 21, 30, and 37 of the application, is different from the insulation layer of Yamazaki.

In addition, Applicant references FIG. 11 of Ythe following figure, wherein circle B shows a light emitting diode 195 electrically connected to the metal pattern 188 and circle A is not a light emitting diode since the metal pattern 188 does not extended and attached to the light emitting layer 192.



Thus, in contrast to the **insulation layer** of Yamazaki, the **transparent insulating cover layer**, which is recited in new claims 21, 30, and 37, is disposed within and surrounded by the transparent light-emitting element. That is, the **transparent insulating cover layer**, which is recited in new claims 21, 30, and 37, can avoid the reflected light from the metal pattern being interfered with by an emitting light from the transparent light-emitting element.

Moreover, the anode (as shown in Fig.11) of Yamazaki is formed by combining a metal line with a plug. However, the transparent anode, which is recited in claims 24 and 31 of the application, is a continuous material. That is, the anode of Yamazaki is different from the transparent anode that is recited in claims 24 and 31.

For at least these reasons, Applicant respectfully submits that the cited references fail to disclose all the limitations of independent claims 21, 30, and 37. Therefore, claims 21, 30, and 37 are allowable over the cited references. Insofar as claims 22-19, 31-16, and 38 depend from claims 21, 30, and 37, these claims are also allowable.

In view of the foregoing, it is believed that all pending claims are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

No fee is believed to be due in connection with this submission. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to Deposit Account No. 20-0778.

Respectfully submitted,

/Daniel R. McClure/

By:

---

**Daniel R. McClure, Reg. No. 38,962**

**THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.**  
100 Galleria Parkway  
Suite 1750  
Atlanta, Georgia 30339-5948  
(770) 933-9500